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Excerpts of 2006

The Expanded Program on Immunization (EPI) rolled out a number of programs in 2006. But polio importation became the main focus of the whole program in the past year. The year 2006 set off its journey with all preparations of conducting the 2nd phase of Measles Campaign, the largest one ever conducted in the world. In the middle of the campaign, the news of polio importation came as the bolt from the blue. The country responded instantly by conducting special NIDs which was appreciated by the whole world. This special NID was followed by two rounds of routine NIDs. Amid of these NID rounds, other important programs were also conducted. The highlights of the major events of 2006 are discussed below:

1. The second phase of Measles Catch-up Campaign: After successful completion of the first phase of Measles Catch-up Campaign in Bogra, Rajshahi district and Rajshahi City Corporation in September 2005, the second phase of this campaign was kicked off on 25 February and continued up to 16 March 2006 in 62 districts and 5 City Corporations. This campaign was the largest public health event in Bangladesh involving more than 50,000 skilled vaccinators, 750,000 volunteers, more than 100,000 schools and 150,000 EPI sites in order to reach 33.5 million children aged 9 months to under 10 years.

2. Polio Importation: After being polio free for more than 5 years, Bangladesh experienced polio importation on 8 March 2006. Global Specialized Polio Laboratory (GPSL) in Mumbai, India, which tests all polio virus isolates from Bangladesh, reported a wild polio virus type 1 isolate, from an AFP case identified by the surveillance system in Chandpur District. The case, a 9 years old girl had onset of paralysis on 23 January 2006. Subsequently, genetic analysis confirmed that this wild poliovirus was an importation from Western Uttar Pradesh, India and not native to Bangladesh. As of 15 January 2007, a total of 17 wild polio cases have been reported from Bangladesh from 11 districts under all 6 divisions.

3. 13th Special NIDs: Following polio outbreak, Bangladesh conducted four rounds of 13th Special NID during April to August 2006. The effort was successfully carried out beginning five weeks after polio virus notification and has been praised in country and abroad. This urgently organized NIDs had highest coverage of 98.1% in 3rd round as per Independent Observers' Checklist findings. Monovalent OPV 1 was administered first time in Bangladesh during this NIDs.

4. Mop-up campaign in Chittagong: Banskhali upazila of Chittagong district reported 4 wild polio cases and vaccination coverage including routine EPI was found poor in this upazila. So, a mop-up campaign was conducted in Chittagong district, Chittagong City Corporation and two adjoining upazilas of Cox's Bazar district in October 2006. A total of 1,542,188 under 5 children were vaccinated in this campaign.

5. 14th National Immunization Days: Polio virus circulation in Bangladesh continued even after 4th round of 13th Special NIDs. To contain the chain of transmission of wild polio virus, 14th NID was conducted during November and December 2006. The 1st round included Vitamin A capsule and deworming tablet. 1st and 2nd round OPV coverage were 96.8% and 95.6% respectively.

6. NT Elimination Campaign in High Risk Areas: Bangladesh conducted 7th round of NT elimination campaign during 5 to 16 November 2006. 471 unions of 151 upazilas under 51 districts, 14 municipalities and some wards of 5 City Corporation (excluding Rajshahi) were selected as high risk areas as per selection criteria for conducting the campaign. This campaign targeted 3 million 15-49 years old child bearing aged women as per their eligibility. The reported coverage turned out to be 88% for TT2.

7. AEFI community based surveillance: Facility based AEFI surveillance was introduced in 2003. Last year, the system expanded to include community. Country wide massive training was conducted for all levels of staff for introduction of AEFI surveillance at community level.

8. Sentinel monitoring system for Vaccine Wastage: The vaccine wastage study conducted in 2005 by WHO-Bangladesh with technical support from SEARO showed high wastage rate for all vaccines used in routine EPI. It was then recommended to establish a sentinel monitoring system to monitor vaccine wastage as a program quality indicator. In order to find out the reasons of vaccine wastage through continuous monitoring and to take appropriate corrective measures or interventions, sentinel monitoring system has been established in 80 upazila of 16 districts.

9. Piloting of 4 site strategy in Routine EPI: Currently EPI services in rural areas are provided through 8 outreach sites per ward per month. If the site number per ward is reduced to 4, the target per site will be doubled and this might contribute in reducing vaccine wastage. So, 6 upazilas from 6 divisions were selected on a trial basis to see the impact on vaccine wastage and immunization coverage.

10. EPI Coverage Evaluation Survey: During July to September 2006, Coverage Evaluation Survey was conducted and it included routine EPI, Measles campaign, NT campaign and NID coverage. The report will be out very soon.

Among the other activities, Consultative Workshop on Hib Vaccine Introduction, SEARO Regional Working Group Meeting and Training on Computerized Routine EPI Data Management System for Divisions/Districts are noteworthy.

Surveillance Summary for 1999-2006 (through Epidemiologic Week 02, January 7 – 13, 2007)

	1999	2000	2001	2002	2003	2004	2005	2006 ¹
Number of AFP cases	761	1138	1287	1365	1128	1301	1458	1610
No. of clinically confirmed polio cases	322	197	NA	NA	NA	NA	NA	NA
No. of compatible cases according to virologic classification system	NA	NA	36	0	0	2	0	1
No. of cases with isolation of wild poliovirus	29	1	0	0	0	0	0	17
No. of discarded polio cases (i.e., non-polio AFP)	439	941	1251	1365	1128	1299	1458	1519
No. of cases pending classification	0	0	0	0	0	0	0	73
Expected annual number of non-polio AFP cases (1/100,000 children <15 yr)*	505	515	533	549	556	563	1094	1114

AFP Surveillance Performance Indicators:

Indicator	Target	1999	2000	2001	2002	2003	2004	2005	2006
1. Annual Non-Polio AFP rate in children < 15 years old	≥ 2.0	0.87	1.82	2.34	2.49	2.03	2.31	2.66	2.73
2. Completeness of passive reporting from facilities	≥ 90%	66%	83%	65%	62%	67%	82%	92%	88%
3. Timeliness of passive reporting from facilities	≥ 80%	30%	58%	38%	36%	62%	75%	84%	82%
4. Suspected AFP cases investigated within 48 hours of notification	≥ 80%	83%	93%	96%	96%	98%	98%	99%	100%
5. Confirmed AFP cases with 2 stool specimens collected ≤ 14 days after paralysis onset	≥ 80%	49%	68%	80%	89%	90%	90%	92%	93%
6. Stool specimens arriving at laboratory ≤ 3 days after collection	≥ 80%	81%	92%	97%	98%	99%	99%	99%	98%
7. Stool specimens arriving at laboratory in "good" condition "good" = 1. Presence of unmelted ice or temperature <8°C 2. Adequate volume (≥ 8 grams or size of ½ thumb) 3. No evidence of leakage 4. No evidence of desiccation (drying)	≥ 90%	97%	100%	100%	99%	100%	100%	100%	100%
8. Confirmed AFP cases receiving a follow-up exam at least 60 days after paralysis onset	≥ 80%	97%	95%	93%	99%	100%	98%	99%	91% ²
9. Stool specimens with laboratory results ≤ 28 days after specimen receipt	≥ 80%	58%	94%	99%	100%	100%	100%	100%	98% ³
10. Stool specimens from which non-polio enterovirus (NPEV) was isolated	≥ 10%	13%	21%	29%	28%	23%	20%	20%	15%

¹ Data as of January 13, 2007; ² among cases occurring up to October 30, 2006; ³ as of December 16, 2006, * Prior to 2005 NPAFP rate calculated as 1/100,000 children.

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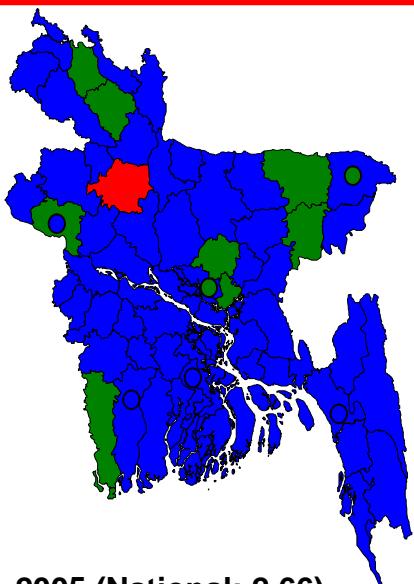
Chief Advisor to the Editorial Board: Dr. Md. Shukuruddin Mridha, Director PHC & Line Director ESD, DGHS, Mohakhali Dhaka.

District	Minimum operational target of non-polio AFP		Total # AFP ¹		Wild polio-virus isolated		# Compatible cases ¹	Non- Polio AFP cases ¹		Pending final classif. ¹		Annualized Non-polio AFP Rate ¹		Notification within 10 d after paralysis onset ¹		Investigation within 48 h after notification ¹		% with 2 stools within 14 days ¹		Stool sample arriving to lab within 72 hrs ¹		% with 60-day follow-up ²			
	2005	2006	2005	2006	2005	2006		2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006		
Dhaka Division																									
Dhaka (non DCC)	25	26	47	42		1		47	40	0	1	3.82	3.10	89%	95%	100%	100%	87%	95%	98%	98%	94%	91%		
DCC only	61	64	54	57				54	51	0	6	1.76	1.59	96%	93%	98%	100%	93%	89%	100%	98%	93%	69%		
Faridpur	15	16	23	31				23	29	0	2	3.01	3.74	96%	90%	100%	100%	96%	100%	100%	94%	96%	75%		
Gazipur	18	18	15	24				15	23	0	1	1.70	2.56	100%	92%	100%	100%	93%	96%	100%	96%	100%	100%		
Gopalganj	10	10	24	28				24	28	0	0	4.87	5.63	100%	96%	100%	100%	96%	100%	100%	100%	100%	100%		
Jamalpur	18	19	32	26				32	25	0	1	3.48	2.68	88%	81%	97%	100%	88%	92%	97%	96%	100%	100%		
Kishoreganj	22	22	33	50	2			33	41	0	7	2.99	3.68	88%	94%	100%	100%	94%	92%	100%	100%	97%	89%		
Madaripur	10	10	22	21				22	21	0	0	4.59	4.35	91%	95%	100%	100%	95%	100%	100%	100%	100%	100%		
Manikganj	11	11	17	25				17	24	0	1	3.03	4.24	82%	100%	100%	100%	88%	100%	100%	100%	100%	100%		
Munshiganj	11	11	31	24				31	22	0	2	5.64	3.97	97%	92%	100%	100%	97%	96%	100%	100%	100%	100%		
Mymensingh	39	39	51	48				51	47	0	1	2.63	2.40	80%	92%	98%	100%	84%	96%	100%	98%	100%	100%		
Narayanganj	19	20	16	30				16	28	0	2	1.66	2.84	94%	90%	100%	100%	90%	90%	100%	100%	100%	88%		
Narsingdi	17	17	19	22				19	22	0	0	2.24	2.54	89%	91%	100%	100%	89%	95%	100%	100%	100%	100%		
Netrokona	17	17	26	28				26	28	0	0	3.03	3.21	100%	93%	100%	100%	96%	96%	100%	100%	100%	100%		
Rajbari	8	8	11	22				11	19	0	3	2.65	4.52	100%	86%	100%	100%	91%	100%	100%	100%	100%	43%		
Sariatpur	9	10	26	35				26	35	0	0	5.52	7.33	96%	97%	100%	100%	92%	97%	96%	100%	100%	100%		
Sherpur	11	11	15	22				15	22	0	0	2.74	3.98	100%	86%	93%	95%	100%	91%	100%	100%	100%	100%		
Tangail	28	28	32	38				32	38	0	0	2.30	2.70	91%	92%	100%	100%	91%	97%	100%	100%	100%	90%		
Total-DHAKA	349	357	494	573	0	3	0	0	494	543	0	27	2.83	3.04	92%	92%	99%	100%	92%	95%	99%	99%	98%	90%	
CTG Division																									
Bandarban	3	3	3	4				3	4	0	0	2.19	2.85	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Brahmanbaria	21	21	25	38	1			25	36	0	1	2.43	3.47	92%	84%	92%	100%	88%	82%	100%	95%	100%	100%		
Chandpur	20	21	21	27	1			21	24	0	2	2.06	2.28	95%	100%	95%	100%	86%	96%	90%	100%	95%	100%		
Chittagong (non CCC)	38	38	46	37	4			46	30	0	3	2.43	1.57	98%	100%	100%	100%	96%	95%	100%	100%	93%			
CCC only	20	21	22	19				22	17	0	2	2.17	1.62	100%	95%	100%	100%	95%	89%	100%	100%	100%	67%		
Comilla	40	41	50	65				50	64	0	1	2.50	3.16	98%	94%	98%	100%	90%	95%	98%	100%	98%	93%		
Cox's Bazar	16	16	19	25				19	25	0	0	2.39	3.08	89%	100%	100%	100%	89%	96%	100%	96%	100%	100%		
Feni	10	11	26	13				26	12	0	1	4.96	2.26	96%	92%	100%	100%	92%	85%	96%	100%	100%	100%		
Khagrachari	5	5	7	7				7	6	0	1	2.75	2.25	86%	86%	100%	100%	86%	86%	100%	100%	100%	100%		
Lakshimpur	13	13	24	22				24	19	0	3	3.71	2.90	88%	95%	100%	100%	88%	91%	96%	100%	96%	100%		
Noakhali	23	23	43	26	1			43	24	0	1	3.81	2.09	95%	92%	100%	100%	95%	96%	100%	100%	98%	80%		
Rangamati	5	5	7	5				7	4	0	1	2.89	1.60	57%	80%	100%	100%	71%	80%	100%	100%	100%	50%		
Total-CTG	214	218	293	288	0	7	0	0	293	265	0	16	2.74	2.44	94%	94%	99%	100%	91%	92%	98%	99%	93%		
Sylhet Division																									
Habiganj	15	16	14	21		2		14	18	0	1	1.83	2.32	79%	86%	100%	100%	96%	100%	100%	100%	100%	100%	75%	
Moulvi Bazar	14	14	15	18				15	18	0	0	2.11	2.48	100%	94%	100%	100%	94%	100%	100%	100%	100%	100%		
Sunamganj	18	18	14	36				14	33	0	3	1.60	3.71	100%	81%	97%	93%	81%	86%	97%	100%				
Sylhet (non SCC)	19	20	25	38	1			25	37	0	0	2.57	3.75	92%	97%	100%	100%	88%	92%	100%	100%	100%	100%		
SCC only	4	4	3	2				3	2	0	0	1.57	0.95	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		
Total-SYL	70	72	71	115	0	3	0	0	71	108	0	4	2.02	3.01	93%	90%	100%	99%	92%	90%	97%	99%	90%		
Raj Division																									
Bogra	26	27	13	29				13	28	0	1	0.99	2.10	85%	90%	100%	100%	92%	93%	100%	97%	100%	75%		
Dinajpur	23	24	27	27		1		27	24	0	2	2.32	2.03	78%	81%	100%	100%	89%	85%	100%	96%	100%	100%		
Gaibandha	18	18	20	19				20	16	0	3	2.19	1.74	90%	79%	100%	100%	90%	74%	85%	95%	100%	88%		
Joypurhat	7	7	13	9	1			13	5	0	3	3.52	1.34	85%	78%	100%	89%	85%	78%	92%	100%	100%			
Kurigram	15	15	16	25				16	24	0	1	2.11	3.13	81%	80%	100%	96%	94%	92%	100%	96%	100%			
Lalmonirhat	10	10	13	12				13	12	0	0	2.68	2.44	85%	83%	100%	100%	77%	92%	100%	100%	100%	100%		
Natore	13	13	13	20				13	19	0	1	2.00	2.89	100%	95%	100%	100%	90%	90%	100%	100%	100%	67%		
Nilphamari	14	14	12	17				12	16	0	1	1.75	2.30	100%	94%	100%	100%	94%	94%	100%	100%	100%	80%		
Noagean	21	21	31	28				31	27	0	1	3.01	2.60	100%	86%	97%	93%	87%	86%	87%	93%	100%	100%		
Nowabganj	13	13	19	23				19	23	0	0	2.99	3.55	89%	91%	100%	100%	84%	96%	100%	100%	100%	100%		

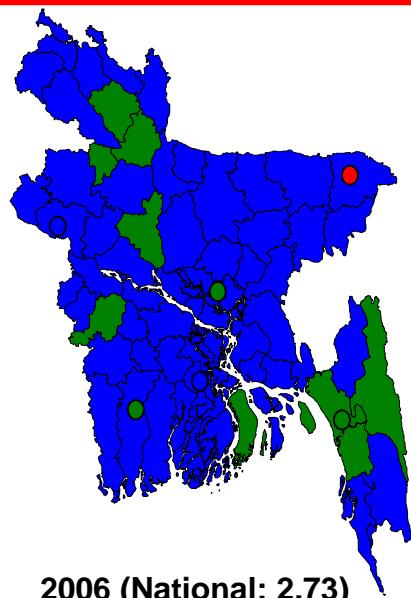
District	Neonatal Tetanus						Measles						AEFI				
	# of case reported by Active Surveillance		# of case reported by Passive Surveillance		# of case Investigated		# of case reported by Active Surveillance		# of case reported by Passive Surveillance		Outbreak*		Number of Outbreak (% Investigated)	# of cases	# of case Reported		
	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006	2005	2006			2005	2006	
Dhaka Division																	
Dhaka (non DCC)	4	2	4	3	4	1	28	16	62	37	3(100%)	1(100%)	480	191	31	27	
DCC only	11	5	15	8	11		204	95	241	90	20(100%)	1(100%)	2791	247	7	32	
Faridpur	2	3	5	4	5	3	5	3	58	32	1(100%)	1(100%)	79	24	80	82	
Gazipur	3		3		2		15	23	44	22	1(100%)	1(100%)	79	80	7	4	
Gopalganj	7	2	8	1	7	2	5	31	157	73	3(100%)	1(100%)	144	30	51	34	
Jamalpur			2	3		1	4	3	36	9					17	43	
Kishoreganj	26	13	28	12	16	6	58	21	153	22	8(100%)	1(100%)	431	94	28	46	
Madaripur		2	1	1		2	16	19	183	73	7(100%)	6(100%)	510	690	61	35	
Manikganj	2		1	1		1	3	6	46	106	7(100%)	1(100%)	1211	38	40	22	
Munshiganj	2		5		2		4	2	291	17	3(100%)		175		18	26	
Mymensingh	21	26	12	17	20		27	41	31	206	44	6(100%)		582		82	34
Narayanganj				1			83	27	84	34	1(100%)		73		31	58	
Narsinghdhi	1	1					22	15	46	15	1(100%)		53		10	28	
Netrokona	2	8	8	9	8	8	6	2	199	68	8(100%)		986		28	43	
Rajbari	1		3		2			4	50	23					8	40	
Shariatpur	3	3	5	1	3	2	6	1	152	36	5(100%)		314		52	29	
Sherpur	3	4	8	10	7	4		1	75	14	1(100%)		146		31	22	
Tangail	4	7	3	7	5	6	15	13	27	23					26	29	
Total-DHAKA	92	76	112	77	92	63	515	313	2110	738	75(100%)	13(100%)	8054	1394	608	634	
CTG Division																	
Bandarban							2	1	8	5					19	14	
Brahmanbaria	9	7	18	7	11	7	2	4	61	14	3(100%)		269		7	13	
Chandpur	4		3		3		7	6	91	16	4(100%)	2(100%)	103	57	44	38	
Chittagong (non CCC)	1	1	7		1		17	18	76	24	1(100%)		17		7	10	
CCC only	8	2	4	3	7	2	78	42	60	42	2(100%)		161		6	14	
Comilla	8	8	6	6	2		9	18	219	69	9(100%)	1(100%)	1045	74	6	10	
Cox's Bazar	7	3	8	9	7	3	7	15	24	23	1(100%)	1(100%)	183	42	8	17	
Feni	2	1	4	2	2	1	5	1	211	26	5(100%)	1(100%)	412	25	11	15	
Khagrachari							2		29	1					2	8	
Laxmipur	6	13	10	9	6	10	4	11	78	36	2(100%)	1(100%)	41	31	55	22	
Noakhali	7	7	11	8	8	2	27	20	86	18	1(100%)		80		20	6	
Rangamati				1			1	2	53	7					3	2	
Total-CTG	52	42	71	45	47	25	161	138	996	281	28(100%)	6(100%)	2311	229	188	169	
Sylhet Division																	
Habiganj	9	13	12	10	2	2	23		131	29	5(100%)		399		38	20	
Maulvibazar	7	3	7	2	1		27	6	174	25	3(100%)		317		16	43	
Sunamganj	8	16	12	12	6	8	285	26	354	46	2(100%)		730		28	33	
Sylhet (non SCC)	4	3	4	2	6	3	162	27	326	82	4(100%)		204		20	19	
SCC only	1	1	1	1	2	1	165	20	182	21					1	3	
Total-SYL	29	36	36	27	17	14	662	79	1167	203	14(100%)	0	1650	0	103	118	
Raj Division																	
Bogra	2	4	6	6	3	1	7	5	28	25	2(100%)		75		169	114	
Dinajpur	7	4	8	6	7	4	3	3	18	43	1(100%)		63	209	59	43	
Gaibandha	2	1	5		8				28	4	1(100%)	7(100%)	61	541	44	43	
Joypurhat	1		1		1		4	2	28	20		1(100%)		26	27	20	
Kurigram		1	5	2	7	3		1	14	28		1(100%)		52	21	12	
Lalmonirhat	1		1		1				21	4					2	16	
Natore	4	1	4		4	2	16	4	180	41	7(100%)		703		27	93	
Nilphamari	3		1	3	2	2	2	1	10	6					44	62	
Noagoan	4		4	1	5	1	3	2	114	4	3(100%)		273		42	31	
Nowabganj	6		3	1	6		6	1	8	1					10	32	
Pabna	2	1	2		2	1	11		42	22					13	12	
Panchagarh	1	2	3	2	2	2		75	3						10	15	
Rajshahi (non RCC)	4	3	6	5	5	3	5	8	12	22	1(100%)	1(100%)	266	223	14	36	
RCC only		1					14	5	242	221	5(100%)	1(100%)	329	50	47	42	
Rangpur	10	5	8	3	9	6	7	1	7	1	2(100%)		47		31	23	
Sirajganj	1	4	2	4	1	1	4		18	6	1(100%)		127		17	25	
Thakurgaon							18	3	22	3	3(100%)		453		7	28	
Total-RAJ	48	27	59	33	63	26	102	36	867	454	26(100%)	12(100%)	2397	1101	584	647	
Khulna Division																	
Bagerhat	4	2	4		2	1	8	9	305	60	13(100%)	10(100%)	674	480	24	62	
Chuadanga	4	1	6	4	5	1	1	2	24	20		2(100%)		136	38	30	
Jessore	5	8	4	7	3	8	10	40	44	74		1(100%)		60	62	39	
Jhenaidah	2	4	2	5	2	3	3	4	20	13	2(100%)	1(100%)	99	148	37	16	
Khulna (non KCC)	2	2	4	2	2	2	6	2	717	178	14(100%)	2(100%)	918	132	62	49	
KCC only	1		1	1	1		3	5	127	19	14(100%)	1(100%)	1161	35	11	9	
Kushtia	1	1		2	1	1	4	3	74	14	2(100%)	1(100%)	176	251	16	23	
Magura	1		2	1	1	1	2	3	18	34		1(100%)		50	20	13	
Meherpur	2	1	3	1	2	1	3	4	34	7	1(100%)		108		9	9	
Narail	10	1	9	3	10	1	1	6	22	3	1(100%)		66		15	18	
Satkhira	3	2	3	1	2	2		1	20	16	2(100%)	1(100%)	176	47	39	66	
Total-KHU	35	22	38	27	31	21	41	79	1405	438	49(100%)	20(100%)	3378	1339	333	334	
Barisal Division																	
Barguna		2	1	2			9	5	84	38					5	9	
Barisal (non BCC)	4	7	6	5	2		33	20	72	14	1(100%)		48		18	29	
BCC only	2		1		2		29	13	21	10					1	3	
Bhola	4	1	8	6	6	4	3	2	72	11	1(100%)		108		29	44	
Jhalakhati	3	3	3	3	1	2	24	11	29	11	1(100%)		68		19	19	
Patuakhali	3	4	3	4	2	2	41	28	70	47	3(100%)		331		6	13	
Pirojpur		2	3	1	2		15	2	32	7	5(100%)		665		33	28	
Total-BAR	16	19	25	21	15	8	154	81	380	138	11(100%)	0	1220	0	111	145	
National	272	222	341	230	265	157	1,635	726	6,925	2,252	203(100%)	51(100%)	19,010	4,063	1,927	2,047	

Data as of Epidemiologic Week 02,

Annualized Non-Polio AFP Rate, by District, Bangladesh 2005-2006*

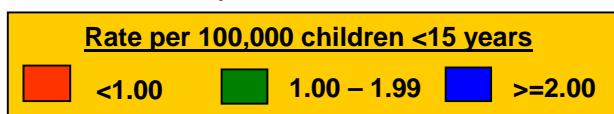


2005 (National: 2.66)

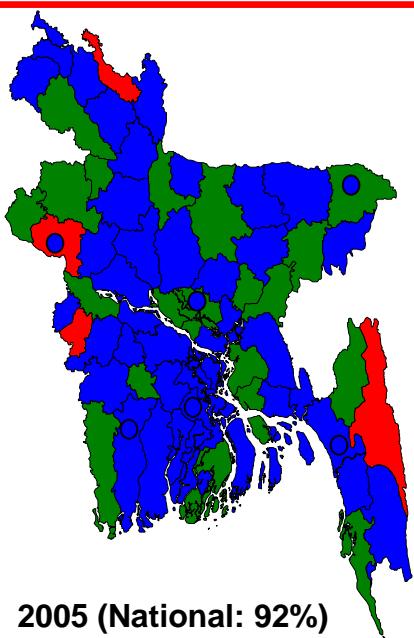


2006 (National: 2.73)

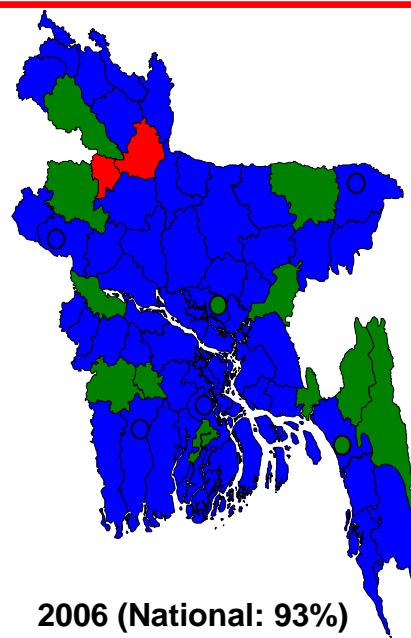
*Data as of Epidemiologic Week 02, January 13, 2007



Percentage of AFP Cases with Two Stool Samples Collected within 14 days of Paralysis Onset, by District, Bangladesh 2005-2006*



2005 (National: 92%)



2006 (National: 93%)



*Data as of Epidemiologic Week 02, January 13, 2007

International Developmental Partners for Polio Eradication in Bangladesh include Centers for Disease Control and Prevention, Atlanta, Governments of Japan, the Netherlands, USAID, Rotary International, U.K. DFID, UN Foundation, UNICEF and WHO